

# INTERNATIONAL SEARCH REPORT

Inter nal Application No

PCT/PT 03/00006

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N9/96 C12N1/04 A61K31/70 A61K47/26

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, MEDLINE, EMBASE, BIOSIS, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 816 509 A (IBET INST DE BIOLOG EX E TECNO) 7 January 1998 (1998-01-07) cited in the application the whole document	1-22
A	EP 0 965 268 A (IBET INST DE BIOLOG EX E TECNO) 22 December 1999 (1999-12-22) cited in the application the whole document	1-22
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the International filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the International filing date but later than the priority date claimed

"T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the International search

24 November 2003

Date of mailing of the International search report

09/12/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer .

van de Kamp, M

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>BORGES N ET AL.: "Comparative study of the thermostabilizing properties of mannosylglycerate and other compatible solutes on model enzymes." EXTREMOPHILES, vol. 6, no. 3, June 2002 (2002-06), pages 209-216, XP002253694 ISSN: 1431-0651 cited in the application abstract</p> <p>----</p>	1-22
A	<p>RAMOS A ET AL.: "Stabilization of enzymes against thermal stress and freeze-drying by mannosylglycerate" APPLIED AND ENVIRONMENTAL MICROBIOLOGY, vol. 63, no. 10, October 1997 (1997-10), pages 4020-4025, XP002114723 ISSN: 0099-2240 cited in the application abstract</p> <p>----</p>	1-22
A	<p>WO 01 76572 A (BITOP GMBH ;SCHWARZ THOMAS (DE)) 18 October 2001 (2001-10-18) the whole document</p> <p>----</p>	1-22
A	<p>WO 01 58446 A (VANGALA MAYA DEVI ;BITOP GMBH (DE); GALINSKI ERWIN (DE); SCHWARZ T) 16 August 2001 (2001-08-16) the whole document</p> <p>----</p>	1-22
A	<p>MARTINS L O ET AL.: "New compatible solutes related to Di-myo-inositol-phosphate in members of the order Thermotogales." JOURNAL OF BACTERIOLOGY, vol. 178, no. 19, October 1996 (1996-10), pages 5644-5651, XP002253693 ISSN: 0021-9193 abstract page 5648, left-hand column, line 9-12 table 2</p> <p>----</p>	1-22
A	<p>CÁNOVAS D ET AL.: "Role of Ngamma-acetyldiaminobutyrate as an enzyme stabilizer and an intermediate in the biosynthesis of hydroxyectoine." APPLIED AND ENVIRONMENTAL MICROBIOLOGY, vol. 65, no. 9, September 1999 (1999-09), pages 3774-3779, XP002253695 ISSN: 0099-2240 abstract</p> <p>----</p>	1-22

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# INTERNATIONAL SEARCH REPORT

Inter<sup>1</sup> 31 Application No

PCT/PT 03/00006

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>EMPADINHAS N ET AL.: "Pathway for the synthesis of mannosylglycerate in the hyperthermophilic archaeon Pyrococcus horikoshii. Biochemical and genetic characterization of key enzymes." JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 276, no. 47, 23 November 2001 (2001-11-23), pages 43580-43588, XP002253696 ISSN: 0021-9258 abstract</p>	1-22
A	<p>SANTOS H ET AL.: "Compatible solutes of organisms that live in hot saline environments." ENVIRONMENTAL MICROBIOLOGY, vol. 4, no. 9, September 2002 (2002-09), pages 501-509, XP002253697 ISSN: 1462-2912 the whole document</p>	1-22
A	<p>SANTOS H ET AL.: "Organic solutes from thermophiles and hyperthermophiles" METHODS IN ENZYMOLOGY, ACADEMIC PRESS INC, SAN DIEGO, CA, US, vol. 334, 2001, pages 302-315, XP008021120 ISSN: 0076-6879 cited in the application the whole document table I</p>	1-22
A	<p>DA COSTA M S ET AL.: "An overview of the role and diversity of compatible solutes in bacteria and archaea" ADVANCES IN BIOCHEMICAL ENGINEERING, BIOTECHNOLOGY, SPRINGER, BERLIN, DE, vol. 61, 1998, pages 117-153, XP002099622 ISSN: 0724-6145 the whole document</p>	1-22

# INTERNATIONAL SEARCH REPORT

Information on patent family members

Inter ... al Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 0816509	A	07-01-1998	PT 101887 A AT 250137 T DE 69724876 D1 EP 0816509 A2	30-01-1998 15-10-2003 23-10-2003 07-01-1998
EP 0965268	A	22-12-1999	EP 0965268 A1 AT 234550 T DE 69812330 D1	22-12-1999 15-04-2003 24-04-2003
WO 0176572	A	18-10-2001	WO 0176572 A2 EP 1272201 A2 JP 2003531833 T US 2003147937 A1	18-10-2001 08-01-2003 28-10-2003 07-08-2003
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